Implementing Business Systems Engineering

"An IT Business Systems Perspective"

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The DLA Enterprise as of 29 Apr 05

FY01 Sales/Services: $17B
FY02 Sales/Services: $21.5B
FY03 Sales/Services: $25B
FY04 Sales/Services: $28B
FY05 Projection: $31.3B

- Land/Maritime/Missiles: $3.2B
- Aviation: $3.6B
- Troop Support: $12.9B
- Energy: $7.6B
- Distribution: $2.8B
- Other: $1.2B

- ~95% of Services' repair parts
- 100% of Services' subsistence, fuels, medical, clothing & textile, construction & barrier materiel

Foreign Military Sales

- Sales: $813.8M
- Shipments: 501K
- Supporting 124 Nations

Scope of Business

- 54,000 Requisitions/Day
- 8,200 Contracts/Day
- #54 Fortune 500 – Above Northrop Grumman
- #2 in Top 50 Distribution Warehouses
- 26 Distribution Depots
- 5.2 Million Items
- 24.7M Annual Receipts and Issues
- 1411 Weapon Systems Supported
- 144.0M Barrels Fuel Sold (FY 04)
- $14.6B Annual Reutilizations/Disposals

People

- 21,429 Civilians
- 528 Active Duty Military
- 668 Reserve Military
- Located in 48 States/28 Countries

Business Systems Modernization (BSM) Program Summary

Program Attributes:
- Major Acquisition Program
- Within Program Objective and Threshold
- Core of DLA Transformation strategy
- Reengineered business process and best practices
- Enterprise Resource Planning (ERP)/COTS
- Commercial Data Center

Expected Benefits:
- Improved demand forecasting accuracy
- Better Stock Positioning
- Improved financial accountability
- Achieve auditable financial statements
- Retire 15 legacy systems
- Reduce risk of catastrophic failure

Program Timeline:
- Analysis of Alternatives   Jan 99
- Scripted Demonstration of COTS   Aug 99
- Mission Need Validated/approved by JROC/Milestone 0   Nov 99
- Approval to begin "Concept Development" by ASD(NII)/Milestone 1/2   Aug 00
- Blueprint/Design/Build/Test   Jan 01-Jun 02
- Approval to begin "Concept Demonstration" by ASD(NII)/Milestone C   Jul 02
- Initial Operating Capability   FY 05
- Full Operating Capability   FY 06

APB and ROI

(Then Yr $millions)	Current	
DWCF	Objective	Threshold
DWCF Capital (FY00-06)	$750.3	$825.3
DWCF OPS (FY00-06)	$168.4	$185.2

ROI Analysis*
- ROI = 4.57
- Payback Date: FY 08

Discounted Dollars in Millions (M)

DLA Business Systems Engineering
Approach

➢ Based on lessons learned from the Business Systems Modernization (BSM) implementation

➢ Structured, repeatable business systems engineering (BSE) process

➢ Reliance on best industry COTS solution integration practices

➢ Integrates software acquisition process improvement with systems engineering

➢ Optimizes the use of best practices and lessons learned from large-scale ERP implementation

➢ Leverages partnerships with leading practitioners from industry

➢ Focuses on technical review approach and criteria

➢ Addresses the key elements of data integrity and data quality

➢ Compliance with enterprise architecture

Business Systems Engineering Approach

Program Management

➤ Documented in SEP/TEMP
➤ Responsibility of the Program SE Lead
➤ Process Validation by the SE Chief

Requirements

ITR

Design

SRR   PDR   CDR

Build

TRR

Independent

OA

Test

IOT&E

ORR   OTRR

Design Deliverables

- Functional Designs
- Scenarios & Scripts
- Data Migration/Conversion Approach
- Training Execution Plan
- Training Gap Analysis
- Competency Profiles
- BSM Roles & Responsibilities

Build Deliverables

- Technical Specifications
- RICE objects
- Training Material
- Unit Test Plan & Results
- System/Product Test Plan
- Conversion/Mock Conversion Test Plan
- Performance/Stress Test Plan
- Regression Test Plan
- Configuration Rationale
- Assembly Test Plans

Test Deliverables

- Functionality Test Cases/Test Scripts/Data Sheets
- Integrated Test Cases/Test Scripts/Data Sheet
- System/Product Test Execution Plan/Log
- Security Test (Application) Plan & Results
- User Acceptance Test Plan & Results
- System Product Test Results
- Conversion/Mock Conversion Test Results
- Performance/Stress Test Results
- Regression Test Results
- SIR Report with Completion Status

INDEPENDENT VALIDATION & VERIFICATION (IV&V)
DATA QUALITY MANAGEMENT
CHANGE MANAGEMENT

DLA Business Systems Engineering
Why DLA was well Positioned

- Mature DLA processes (DLA "One Book")

- Strong BSM Systems Integration (SI) Model – Technical Management baseline to build from

- Solid PEO/PM oversight structure and process

- Core BSE skills and experience provided by SI augmented by government personnel

- Software Acquisition Process Improvement Plan implemented one year previously

- Logistics sponsored Enterprise Integration (EI) Toolkit (www.eitoolkit.com)

➢ ***Policy and guidance need to more clearly address:***

- Inherent differences between the application of IT/BSE and weapons systems environment

- Optimization of test and evaluation processes within the overall BSE process

- Importance of data quality and change management processes

➢ ***Training focus areas:***

- Knowledge Transfer of core BSE skills from industry practitioners

- Grooming in-house BSE experience. Broadening BSE education and training beyond the key BSE positions (e.g. PM, Chief Business System Engineer, Lead SEs)

- Leveraging individual Lead SEs across multiple programs

➢ Building a DLA BSE organization and BSE experienced cadre

➢ Policy and guidance more focused on large Service implementation environments – necessitates tailoring to meet the DLA COTS-based business systems environment

➢ For more information: check out
  - EIToolkit.com
  - DAU Continuous Learning Module (CLE006-Enterprise Integration Oversight)